AXMINSTER Hobby SERIES

Code **501251**

AW12BM 12mm Bench Morticer

Axminster Tool Centre,
Unit 10 Weycroft Avenue, Axminster, Devon EX13 5PH

axminster.co.uk

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Declaration of Conformity

Copied from CE Certificate

The undersigned, F. Nispelauthorised by

Laizhou Chunlin Machinery Factory, No. 275 Wenquan East Road, Laizhou, Shandong 261400 P.R. China declares that this product

Model number
MS3612 Morticer

manufactured by Laizhou Chunlin Machinery Factory is in compliance with the following standards or standardisation document in accordance with Council Directives

Low Voltage Directive 73/23/EEC
Amended by EEC Directive 93/68/EEC

Warning **The symbols below advise that you follow the correct safety procedures when using this machine.**

Fully read manual and safety instructions before use

Ear protection should be worn

Eye protection should be worn

Dust mask should be worn

HAZARD
Motor gets hot

Quantity	Item	Model Number
1 No.	Mortising Machine Base with Mounting Columns, Plunge Depth Stops,	
	Balance Spring, Head Box, Chisel Adaptor, Chuck and	
	Fence Mounting Block assembled	MS3612
1 No.	12mm Auger Chisel and Bit Set	
1 No.	Composite Board Machine Table	
1 No.	Back Fence with Main Mounting and Hold Down Mounting Rods Fitted	
1 No.	Large Tensioning Spring	
1 No.	Lift and Shift Locking Handle	
1 No.	Fence Adjusting Assembly	
1 No	Hold Down Yoke	
1 No.	Accessories Rack with 2 Large Panhead Screws	
1 No.	Small 'P' Clip	
1 No.	Rod Lever Handle	
1 No.	Small Tensioning Spring	
1 No.	Large Head Machine Screw	
1 No.	Grip Sleeve	
1 No.	1-13mm B6 Drill Chuck	
1 No.	B6 to Parallel Chuck Mounting Shaft (For Drilling Operations)	
Tool Packet		
	1 No. 4mm Allen Key	
	1 No. 5mm Allen Key	
	1 No. 6mm Allen Key	
1 No.	Spring Nose Chuck Key	
1 No.	Plastic Tube (Dust Extractor Connector) and Short Bolt	
2 No.	Countersunk Screws (Secure Down Machine Table)	
1 No.	Small Light Fitting on Flexi-Conduit with Fixing Bracket Attached	
1 No.	Lift and Shift Handle	
1 No.	Instruction Manual	

Initial Actions

Having unpacked your machine and its accessories, please check the contents against the equipment list ”What’s in the box”, if there are any discrepancies, please contact Axminster Power Tool Centre using the procedures laid down in the catalogue. Please dispose of the packaging responsibly; much of the material is bio-degradable. The machine and its accessories will arrive coated with heavy corrosion preventative grease and greased wax paper. These will need to be cleaned from the machine, its components and accessories prior to it being set up and commissioned. Use coal oil, paraffin or a proprietary degreaser to remove the barrier grease. Be warned, it will stain if you splash it on clothing etc.; wear overalls, coverall et al., rubber gloves are also a good idea, as is eye protection if your cleaning process tends to be a little bit enthusiastic. After cleaning, lightly coat the exposed metal surfaces of the machine with a thin layer of light machine oil. N.B If you used paraffin/kerosene make sure you apply this thin film sooner rather than later.

Please read the Instruction Manual prior to using your new machine; as well as the installation procedure, there are daily and periodic maintenance recommendations to help you keep your machine on top line and prolong its life. Keep this Instruction Manual readily accessible for any others who may also be required to use the machine.

Work Place/Environment/Installation

Mains Powered Machines

Primary Precautions

These machines are supplied with a moulded 13 Amp. Plug and 3 core power cable. Before using the machine inspect the cable and the plug to make sure that neither are damaged. If any damage is visible have the machine inspected/repaired by a suitably qualified person. If it is necessary to replace the plug, it is preferable to use an ‘unbreakable’ type that will resist damage. Only use a 13 Amp plug, make sure the cable clamp is tightened securely. Fuse at 13 Amp. If extension leads are to be used, carry out the same safety checks on them, and ensure that they are correctly rated to safely supply the current that is required for your machine. It is also recommended that the power supply outlet is the switched type, and that the supply is switched off whilst plugging in, or unplugging the machine.

General Instructions for 230V Machines

Good Working Practices/Safety

The following suggestions will enable you to observe good working practices, keep yourself and fellow workers safe and maintain your tools and equipment in good working order.

WARNING!! KEEP TOOLS AND EQUIPMENT OUT OF THE REACH OF YOUNG CHILDREN

Work Place/Environment

The machine is not designed for working outside, do not use when or where it is liable to get wet. If the machine does get wet; dry it off as soon as possible, with a cloth or paper towel. Do not use 240Va.c. powered machines anywhere within a site area that is flooded or puddled, and do not trail extension cables across wet areas. Keep the machines clean; it will enable you to more easily see any damage that may have occurred. Clean the machine with a damp soapy cloth if needs be, do not use any solvents or cleaners, as these may cause damage to any plastic parts or to the electrical components.

Keep the work area as well lit and uncluttered as is practical, this includes personnel as well as material.

Under no circumstances should CHILDREN be allowed in work areas.

It is good practice to leave the machine unplugged until work is about to commence, also make sure to unplug the machine when it is not in use, or unattended. Always disconnect by pulling on the plug body and not the cable. Once you are ready to commence work, remove any tools used in the setting operations (if any) and place safely out of the way. Re-connect the machine. Carry out a final check e.g. check the cutting tool, drill bit etc., is securely tightened in the machine, check you have the correct speed and function set, check that the power cable will not 'snag' etc.

Make sure you are comfortable before you start work, balanced, not reaching etc.,

If the work you are carrying out is liable to generate flying grit, dust or chips, wear the appropriate safety clothing, goggles, gloves, masks etc., If the work operation appears to be excessively noisy, wear ear-defenders. If you wear your hair in a long style, wearing a cap, safety helmet, hairnet, even a sweatband, will minimise the possibility of your hair being caught up in the rotating parts of the tool, likewise, consideration should be given to the removal of rings and wristwatches, if these are liable to be a 'snag' hazard. Consideration should also be given to non-slip footwear, etc.

Do not work with cutting or boring tools of any description if you are tired, your attention is wandering or you are being subjected to distraction. A deep cut, a lost fingertip or worse; is not worth it!

Do not use this machine within the designated safety areas of flammable liquid stores or in areas where there may be volatile gases. There are very expensive, very specialised machines for working in these areas, THIS IS NOT ONE OF THEM.

Check that cutters, drills etc., are the correct type and size, are undamaged and are kept clean and sharp, this will maintain their operating performance and lessen the loading on the machine. Above all, **OBSERVE....** make sure you know what is happening around you, and **USE YOUR COMMON SENSE.**

Initial Assembly

Please take some time to read the section entitled "Identification and Parts Description" to identify the various parts of your machine so that you familiar with the terminology we will use to enable you to set up and operate your Morticer safely and correctly.

1) Place the machine onto a suitable surface, at a height that will enable you to work comfortably. Locate the machine table and the 2 No. countersunk screws. Place the table on the base and fasten down using the 2 No. screws. Locate and remove the two caphead bolts from the holes to the rear left of the tool post column bridge, lift the lamp fitting and locate the mounting bracket over the holes, re-insert the bolts and tighten securely. Remove the fitted 'P' clip and screw, snap the clip over the cable and resecure.

2) Locate the Accessory tray, the small 'P' clip and the three small panhead screws. Locate the 3 No. threaded holes in the rear upper left side of the headbox. Snap the 'P' clip on the cable, tidy' the mains cable away from the front of the machine, and secure into the most forward threaded hole. Offer up the accessory tray and secure using the remaining two panhead screws, into the threaded holes.

3) Locate the backfence and its associated components. Fit the lift and shift clamping handle into the back fence mounting block, leave the housing clear to fit the main mounting bar of the back fence. Fit the large spring over the main mounting bar, introduce the bar into the mounting block and push home, put the spring under some tension and tighten down the clamping handle. Located the 'fine adjust' assembly over the main bar and secure in place by tightening the socket grubscrew. Turn the adjusting bolt until the bolt is in contact with the mounting block. Unlocking the clamping lever handle should enable the back fence to be adjusted back and forth using the adjusting bolt 'with' or 'against' the tension in the spring.

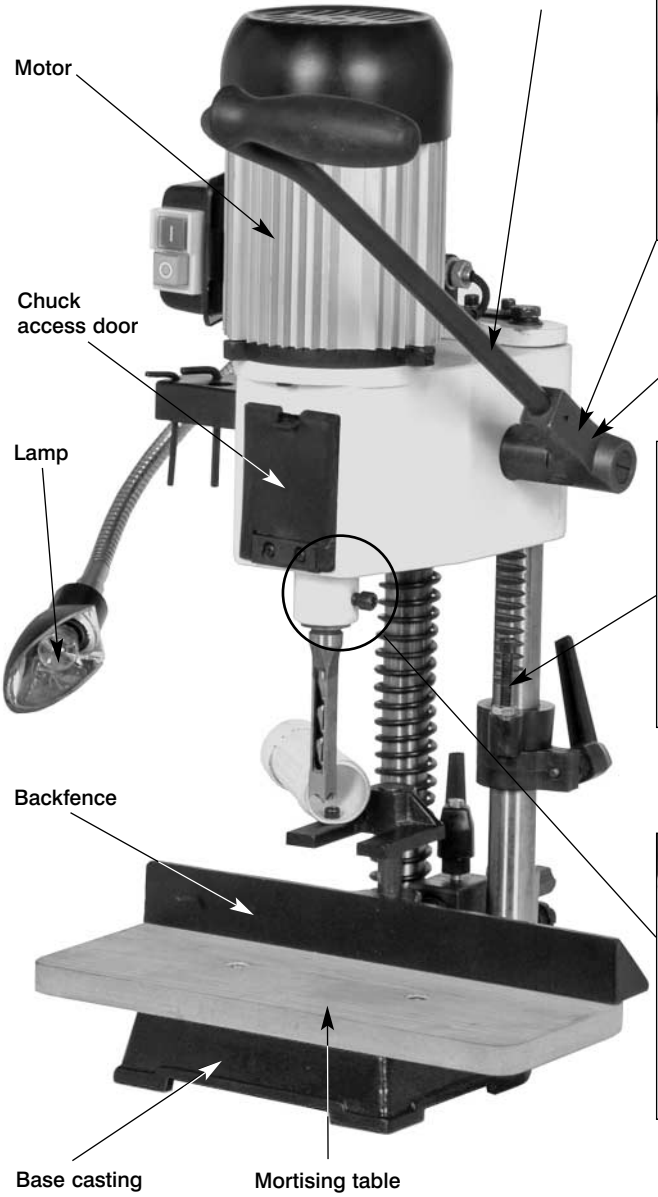
4) Locate the handle and the grip sleeve, fit the sleeve over the handle. (If it is difficult to slide on, try lubricating with a small amount of washing up liquid. Locate the small spring and the large headed screw. Place the handle over the rise and fall shaft, fit the spring over the large head screw shaft and screw into the end of the rise and fall shaft. The spring pressure should be enough to keep the castellated dogs of the handle and the rise and fall shaft together under normal operation, but allow the dogs to be disengaged to re-position the handle. Exercise the headbox up and down and check everything works satisfactorily.

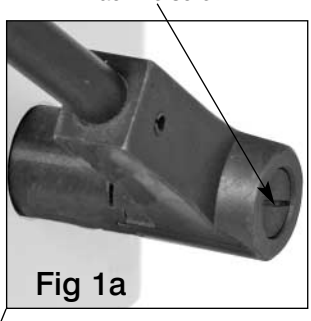
5) Locate the hold down yoke, fit over the rod fitted upright in the backfence casting, secure in place using the socket grubscrew. Locate the dust extraction pipe and the short caphead bolt. The pipe is located onto the hold down yoke using the bolt into a pre-threaded hole in the top of the left arm of the hold down yoke.

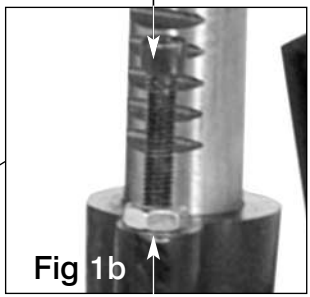
Specifications

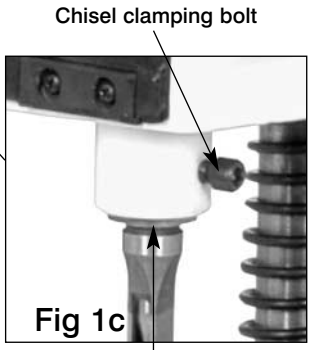
Model	AW12BM
Product Code	501251
Rating	Hobby
Power	370W
Chisel Stroke	110mm
Centre of Chisel to Back Fence	95mm
Max Height of Timber with 12.7mm Chisel and Bit	120mm
Max Chisel Size Softwood	12.7mm
Max Chisel Size Hardwood	12.7mm
Overall L x W x H	350 x 350 x 600mm
Weight	25kg

Fig 1


Motor
Rise and fall Mechanism
Chuck access door
Lamp
Backfence
Base casting
Mortising table


Large head machine screw
Fig 1a


Plunge lever assembly
Depth stop bolt
Fig 1b
Lock nut


Chisel clamping bolt
Fig 1c
Chisel mounting flange

Please take some time to identify the various parts of your machine so that you are familiar with the terminology we will use to enable you to set up and operate your morticer safely and correctly.

Base Casting (See fig 1)
This is the 'Stand' for the mortising m/c. It has a square flat table machined at the front, onto which a machine table board can be fitted. There are several holes and slots in the base through which you could fasten the base to a bench or similar to give added stability if you so desire. At the rear of the base are the housings for the tool posts.

Fine adjusting system (See fig 2c)
The fine adjusting system consists of a metal plate bored through to fit over the backfence main mounting bar, beyond the mounting block. The plate is held in position by a grubscrew threaded through the wall of the hole and screwed down against the main mounting bar. There is also a threaded hole through the plate, through which a long star knobbed bolt is fitted. This bolt acts against the lower part of the backfence mounting block and is used to adjust the backfence against the spring tension. If the reach of the bolt is exceeded during adjustment, the plate can be further adjusted along the main mounting bar.

Mortising table the (See fig 1)
The Mortising table is a piece of composite board which is screwed down to base casting to provide a large flat area on which to mount the work piece.

Counterbalance spring (See fig 2)
A large coil spring is mounted over the left hand side tool post column. It acts between the machine base and the underside of the headbox, and in compression, acts as a counterbalance to the weight of the headbox assembly.

Double depth stop (See fig 2)
Two ring collars that fit over the right hand side tool post column below the head box. The lower collar has a threaded through hole into which a lift and shift lever handle bolt is inserted. Tightening this bolt will clamp the collar into position on the tool post column and govern the position of the upper collar. The upper collar has a bolt with a lock nut threaded into the upper face of the collar, this bolt can be adjusted and locked. Turning the head of the nut under the head box, or turning the head of the bolt out from under the head box will give two separate plunge depths.

Backfence (See fig 1)
This is a casting with a machined front face and a flat underside. There is a large land in the middle of the casting behind the front face; this land has the main mounting bar fitted to it, which extends to the rear; and is fed through the backfence mounting block. There is a tension spring fitted concentrically over the bar, which is compressed between the rear of the back fence and the front of the backfence mounting block, which is part of the fence adjusting system. There is also a housing machined in the top front of the land; into this housing the support rod for the hold down is fitted; it can be adjusted in height over part of its length and is held in place by a grubscrew inserted through the wall of the housing.

Backfence mounting block
This is a large block mounted on the base between the tool post columns. It has a hole bored through it to accept the main mounting bar of the back fence. There is a tapped hole through the top wall of the hole into which a lift and shift locking handle is fitted, to secure the backfence at its required dimension.

Fig 2a

Fig 2b

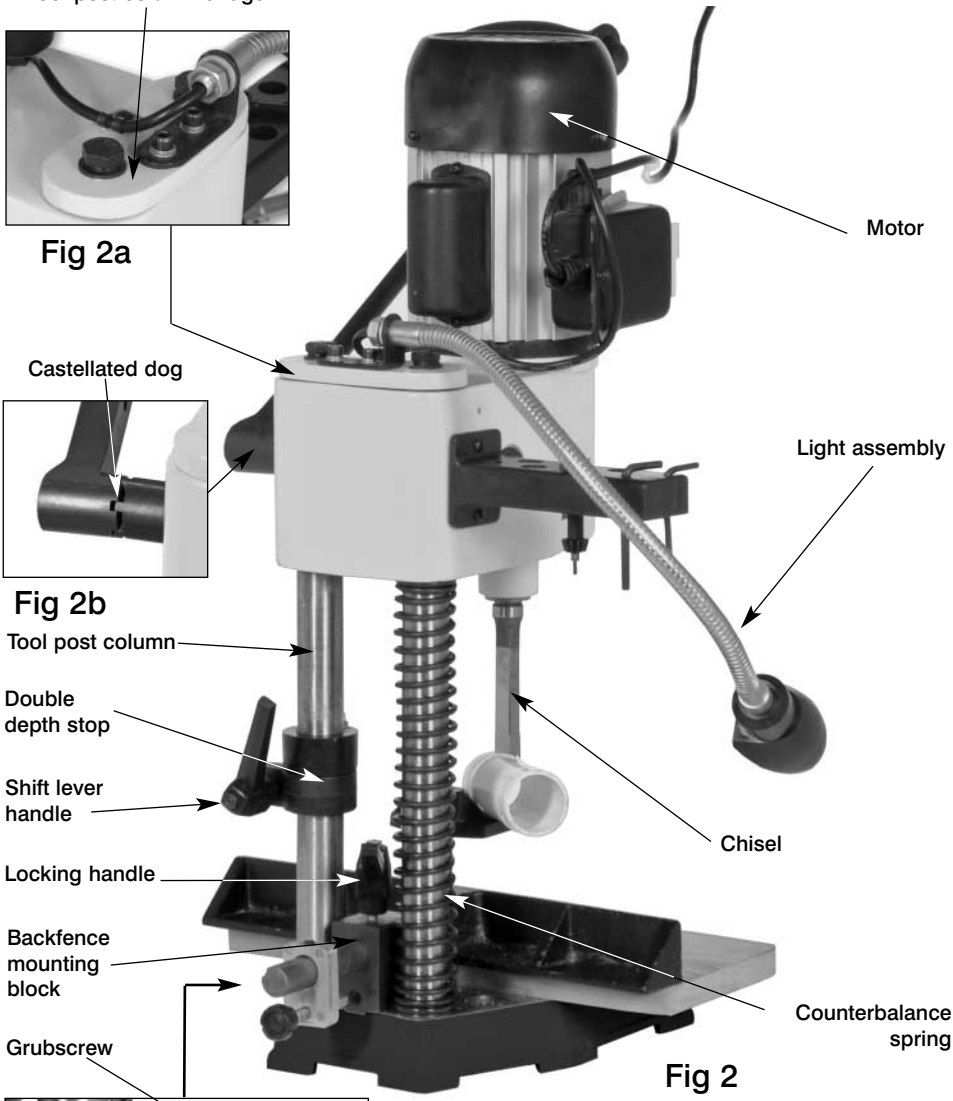


Fig 2

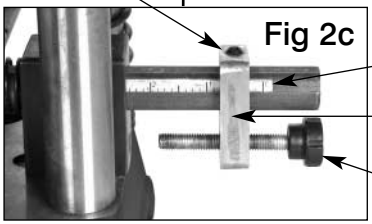


Fig 2c

Fine adjusting system

Tool post columns (See fig 2)
Two steel shafts mounted into the rear of the base casting, they are the 'runners' for the headbox. They are 'bridged' at the top to increase accuracy and rigidity, The machine lamp is mounted on the bridging lozenge. The right hand column has a rack cut in the surface which engages with a pinion in the headbox assembly to provide the rise and fall action. The double depth stop collar is also mounted on the right hand side column below the headbox. The left hand column carries the counterbalance spring.

Headbox
This is the 'morticing machine' and the descriptions of its various parts and components are detailed as follows:-

Headbox casting (See fig 3)
The main casting to which all the components are attached. The headbox has two sleeve housings machined at the rear, which allows the casting to be fitted to the Tool Post Columns.

The motor (See fig 3)
Standard 240V 50Hz single phase four pole motor rated at 370W, mounted on the top of the headbox.

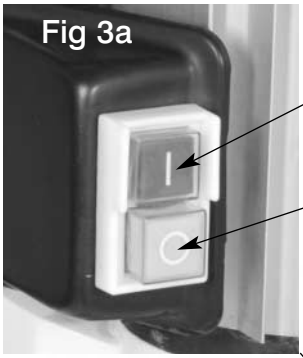
Auger mounting chuck (See fig 3b)
A 12mm drill chuck that is mounted directly onto the motor shaft. Access for the chuck key is via a door in the front of the headbox.

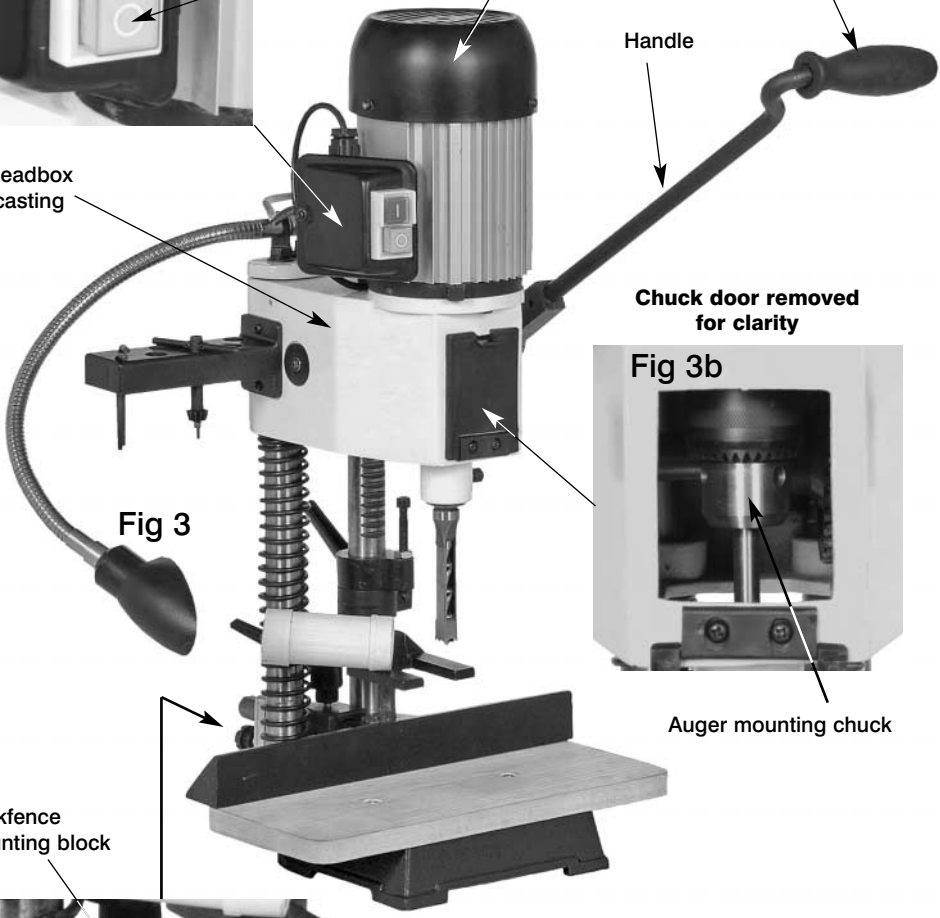
On/Off switch assembly (See fig 3a)
The switch assembly is mounted in a box which is bolted to the side of the Motor. The two button switches are marked with the standard 'O' for stop and 'I' for start. The assembly is an NVR type so any loss of the supply during operation, when re-established, will not cause the motor to restart.

Rise and fall mechanism (See fig 1)
There is a housing machined on each side of the the headbox which mounts a through shaft. A pinion gear is mounted on the shaft inside the headbox and meshes with the rack cut into the tool post column. Driving the pinion shaft will cause the headbox to rise and fall up and down the tool post columns. The end of the shaft protruding from the headbox has a castellated dog mounted over it which is pinned through to prevent slip, through the centre of the dog is a threaded hole to enable the plunge lever assembly to be mounted to it.

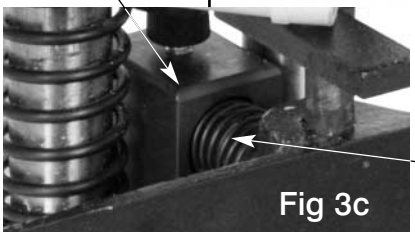
Plunge lever assembly (See fig 1)
The associated part of the rise and fall mechanism is the plunge lever handle assembly. This consists of a tube, shaped and bent to provide a handle. The end of the handle which mounts onto the rise and fall shaft has a castellated dog and a locating boss. There is a through hole in the boss, one end of the boss is the mating castellated dog that meshes with the dog on the pinion shaft; the other end is recessed to house the fixing bolt and the retaining spring. The fixing bolt goes through the boss into the rise and fall shaft, tensions the spring which holds the castellations engaged. To move the handle to a different position, disengage the dogs by pulling them apart (against the spring) move the handle to the desired position, and allow the spring to re-engage the dogs. There is a grip sleeve that fits over the handle itself, to provide a firmer grip and some cushioning to the hand.

NVR on/off switch assembly





Chuck door removed for clarity



Hold Down Yoke (See fig 4b)
This is a small 'U' shaped yoke casting. The underside of the arms of the 'U' are flat, to rest on the workpiece. In the middle of the yoke is a land sufficiently large enough to be bored through to accept the mounting rod. There is a grubscrew threaded through the wall of the hole so that the hold down can be secured in position.

Chisel mounting flange (See fig 1c)
The chisel mounting flange is a raised annular housing machined at the bottom of the headbox. It has a 3/4" adaptor pressed into it, which is used to clamp the chisels in position. It is also used to mount the guard when the morticer is used in 'Drill' mode.

Chuck access door (See fig 1)
Access to the chuck for loosening or tightening is via a rectangular hole in the front of the headbox casting. This hole is covered by a hinged door. The door is held closed by a sprung catch moulded into the door.

Accessory mounting panel (See fig 4a)
A plastic block, with various holes moulded into it to allow the chisel sets, chuck key, allen keys etc, of the machine tool kit, to be stowed safely out of the way but close to hand.

Chuck guard (See fig 5a)
A hinged and telescopic guard that is fitted to the headbox lower bearing flange during drilling operations. (Remove the bolt for the chisel clamping) It has a spring fitted to the hinge geometry to hold the guard "over centre" to maintain it in the raised or lowered position. The guard shield can be extended or retracted (telescoped) as required, using the second leaf, the second leaf is held in position by two butterfly nuts and bolts.

1-13mm/B6 drill chuck` (See fig 5d)
A standard 12mm chuck with an internal B6 taper mount. Used in conjuction with the mounting shaft to transpose the mortiser into a small drill press.

B6 to parallel shank shaft (See fig 5d,5e)
The mounting shaft for the drill chuck, the main shaft has a diameter slightly smaller than the adaptor for the chisels.

Fig 4

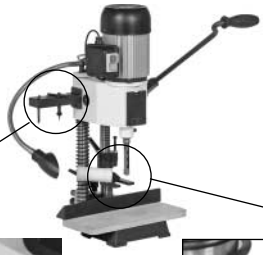
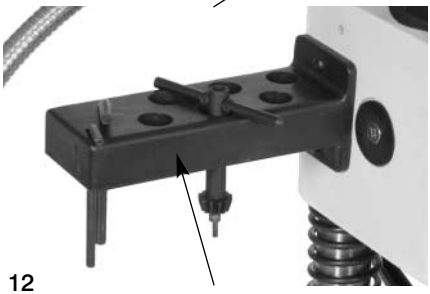
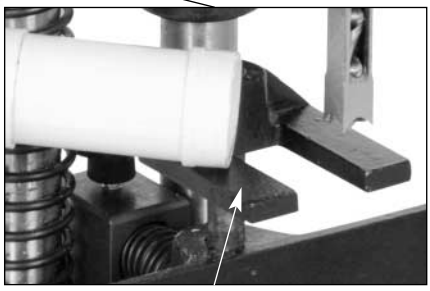


Fig 4a



Accessory mounting panel

Fig 4b



Hold down yoke

Drill press assembly

Fig 5

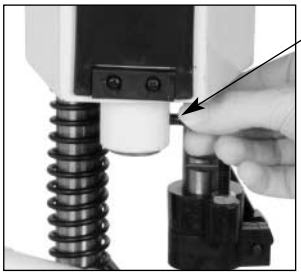


Fig 5a

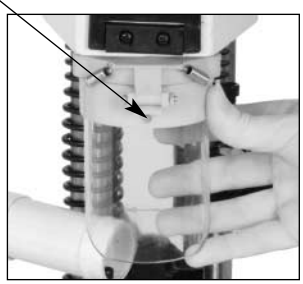
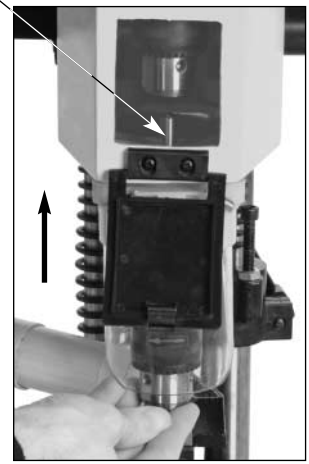


Fig 5b



Morticer converted to a drill press

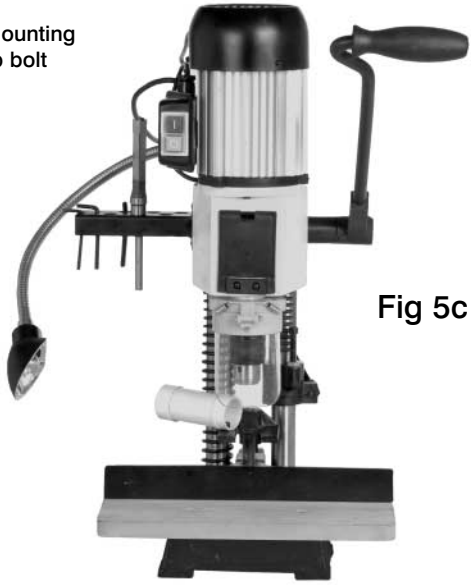


Fig 5c

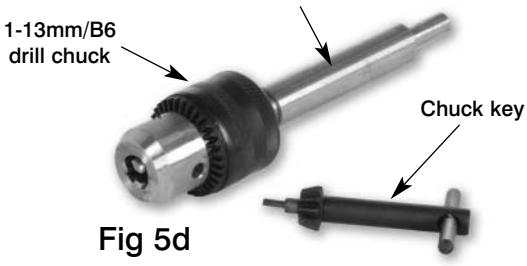
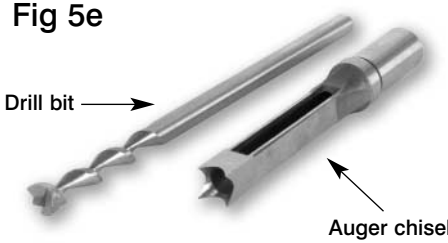


Fig 5d

1-13mm/B6 drill chuck assembly

Fig 5e



12mm auger chisel & bit set

Overview

Unlike the traditional morticing machines, which allow the table to move in 2 axis, i.e. side to side and front to rear, the table of this morticer does not move at all. The workpiece must be moved to achieve the side to side movement, and the placement of the back fence simulates the front to rear movement.

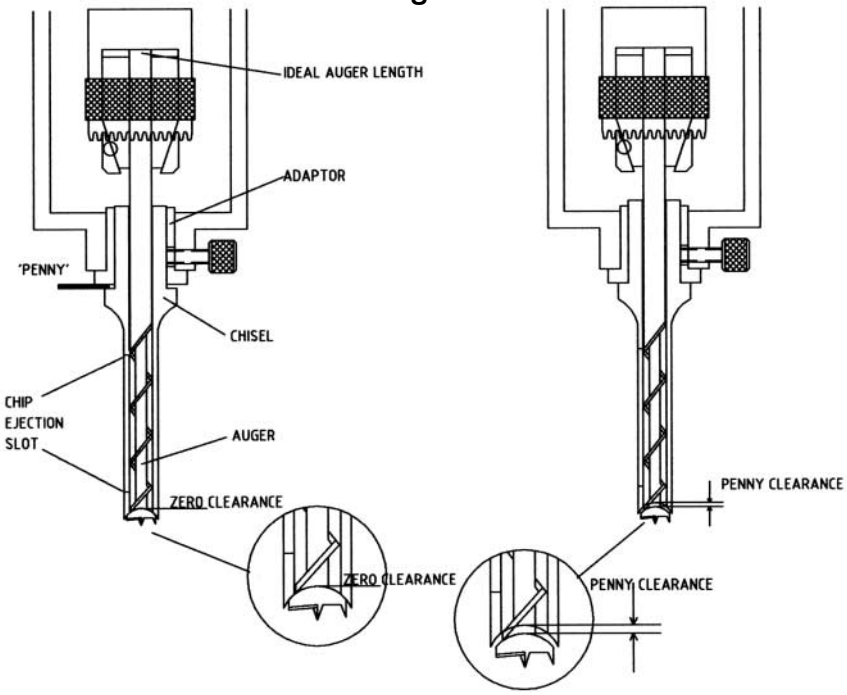
Initial Set up

Introduce the chisel into the adaptor collar, press the auger up into the chuck, tighten the chuck and withdraw the chuck key. Gently pinch the chisel in place by finger tightening the securing bolt.

Setting the chisel auger clearance

The old rule of thumb for chisel auger clearance was known as “the one penny width”. This was achieved by introducing a penny between the locating shoulder of the chisel and the adaptor face, with the auger locked in place and with the chisel pulled hard down on the auger. The penny was then removed and the chisel pushed up to the adaptor face and locked in place, this established the “one penny width” between the chisel and the auger, which for general timbers and mortice sizes is quite adequate. Traditional mortisers normally had a cross pin in the auger mounting mandrel, to prevent the auger being pushed back up into the chisel. The mounting method on the newer mortisers is a chuck. It is well worth taking the extra time and care to prepare your augers to give the correct ‘reach’ when ‘bottomed’ out in the chuck. This will prevent the auger being pushed back towards the chisel and altering the clearance setting. (See fig 6)

Fig 6



General Notes

The morticer will generate a lot of 'grip' on the chisel, especially the first cut, or if the timber is a little green. Make sure you use the hold down yoke to help control the timber during the raise operation of the morticer.

A lot of setting and resetting is required for the various components of the morticer. A lot of the settings are more easily achieved by measurement from the front edge of the table, and a broad assumption is made that the front edge of the table is parallel to the face of the backfence. The table is indeed rectangular, but the edges are not highly precision machined faces, within a 5 decimal place tolerance. If you ascertain that the front edge is NOT, in fact, parallel with the face of the backfence, putting a permanent mark on each side of the table from where you will carry out your measurements, will ensure that the discrepancies will be constant and can be added or subtracted from the initial measurement you establish.

Setting the chisel Square

When the chisel is tightened in the machine it must normally be square to the backfence.
The easiest way to achieve this is to bring the headbox down to bring the chisel as close to the table as possible, make sure the backfence is locked in place, set a square against the backfence and set the side of the chisel against the square. and clamp tight. (Remember to have the chipejection slot in the chisel to the side from which you will cut the mortice).

Setting up the backfence

Usually the easiest method is mark out the mortice, place the workpiece on the table, lined up under the chisel and then move the backfence to the workpiece and lock it in position. Another way is by measurement, provided you know where the mortice is to be in the workpiece, the backfence can be set away from the chisel by measurement, either directly off the backfence or as a complement figure from the front of the table. A useful accessory for this operation is an engineers combination square (where the graduated top blade is moveable).
Tip. Because of the necessity of constantly setting and resetting the backfence, it could be very useful to scribe a series of parallel lines (about 3mm apart?) on the table to aid the setting operation.

Quick Setting the Backfence/Chisel/Mortice Position

A quick set method for achieving the correct position of the backfence is as follows:-

1. Mark the centre line of the mortice.

2. Lower the headbox so that the auger point just pierces the centre mark, but not so hard that the workpiece cannot be 'spun'. Hold the headbox in place.
Note English pattern augers without the centre point can be used by driving the cutting spurs into the timber. Have care with the smallest chisel sizes and only drive in sufficiently hard for the auger to lock into the workpiece.

3. Turn the workpiece about the point of the auger until it is approximately parallel with the front edge of the table, measure from your permanent marks and 'true up'.

4. Clamp the workpiece in position.

5. Lay the backfence up to the workpiece and clamp that in position.

Quick Setting of the Mortice Depth

Put a mark on an easily accessible end of the workpiece to be mortised, at the depth you require. Pull the headbox down, and put the end of the timber against the chisel, position the headbox so that the chisel points or the auger point are at the depth required, raise the depth stop collar to the underside of the headbox and tighten gently. Recheck the depth of the chisel point, if it is satisfactory tighten securely, if not it can be gently 'nudged' down the column with the headbox, then tighten. Reposition the plunge lever handle to give the most comfortable position and purchase on the lever, over the full distance of the movement you have just set.

Using the AW12BM as a Drill Press

Warning. Do not work on metal/material that could leave greasy/oily marks, without removing the mortising table. Refit after drilling operations are complete and the machine has been thoroughly cleaned of these contaminants. (in respect of timber)

Locate the 1-12mm B6 chuck and the B6 to parallel chuck mounting shaft. Fit the chuck onto the shaft, secure with a light tap with a hammer? et al.

Remove the chisel from the adaptor in the headbox., clean and put aside, or stow in the accessories rack. Remove the chisel clamping bolt, (See fig 5) then slide the chuck guard on to the lower bearing flange of the headbox. (See fig 5a) Introduce the chuck mounting shaft through the adaptor and up into the auger mounting chuck, (See fig 5b) tighten the chuck securely onto the parallel shank.

N.B. If you have insufficient reach under the drill chuck, the reach can be marginally increased by removing the machine table. This will also allow access to the machine base slots to facilitate clamping the workpiece down etc.

NOTE. Before running the machine in the 'drill mode' lightly oil the shaft where it passes through the chisel adaptor, and exercise/turn the shaft by hand to fully coat the two surfaces.

General Precautions Whilst Using a Drilling Machine

1. Use the chuck guard.

2. Do not operate the machine without carrying out a preliminary inspection.

3. Remember you only have 1 speed available.

4. Check the drill bit is the correct size and type, is correctly fitted and tightened in the chuck. Do not overwork the machine, either by drill size or workrate.

5. Do not attempt to carry out any drilling operation on material that has not been secured to the drill table, either by vice or clamp.

6. Remove any tools (chuck key, spanners etc), that may have been used in setting up operations and put them away in their correct stowage positions.

7. Always allow the drill to stop before removing drillings or swarf from around the job or the table.

8. NEVER remove 'flying' swarf strands from the drill whilst it is turning.

9. It is a good precaution to wear eye protection when drilling, especially using small drills, or very hard material that produces small chips.

10. It is not a good idea to wear gloves when operating a drill press.

11. After the job is completed, remove all tools and accessories from the machine, check that drill bits are still sharp and re-useable. Clean the machine down thoroughly, including removing coolant or cutting compounds from the drill table. Lightly coat all metal surfaces with a light oil coating. Disconnect the machine from the supply. Secure the cable/plug clear of the floor.

Maintenance

There is very little maintenance required on your morticer.

Keep it clean

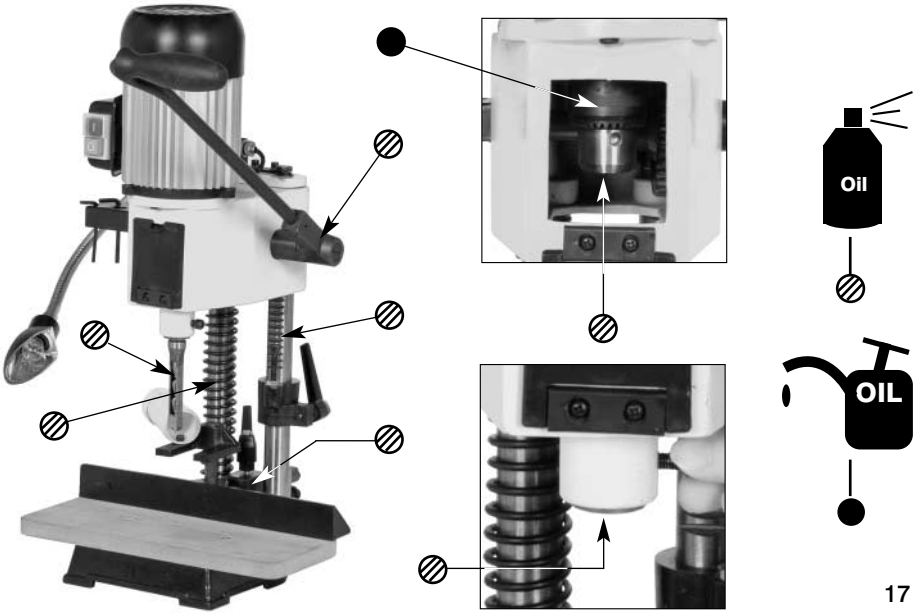
Make sure the rack and pinion gears do not become clogged with chips/sawdust.

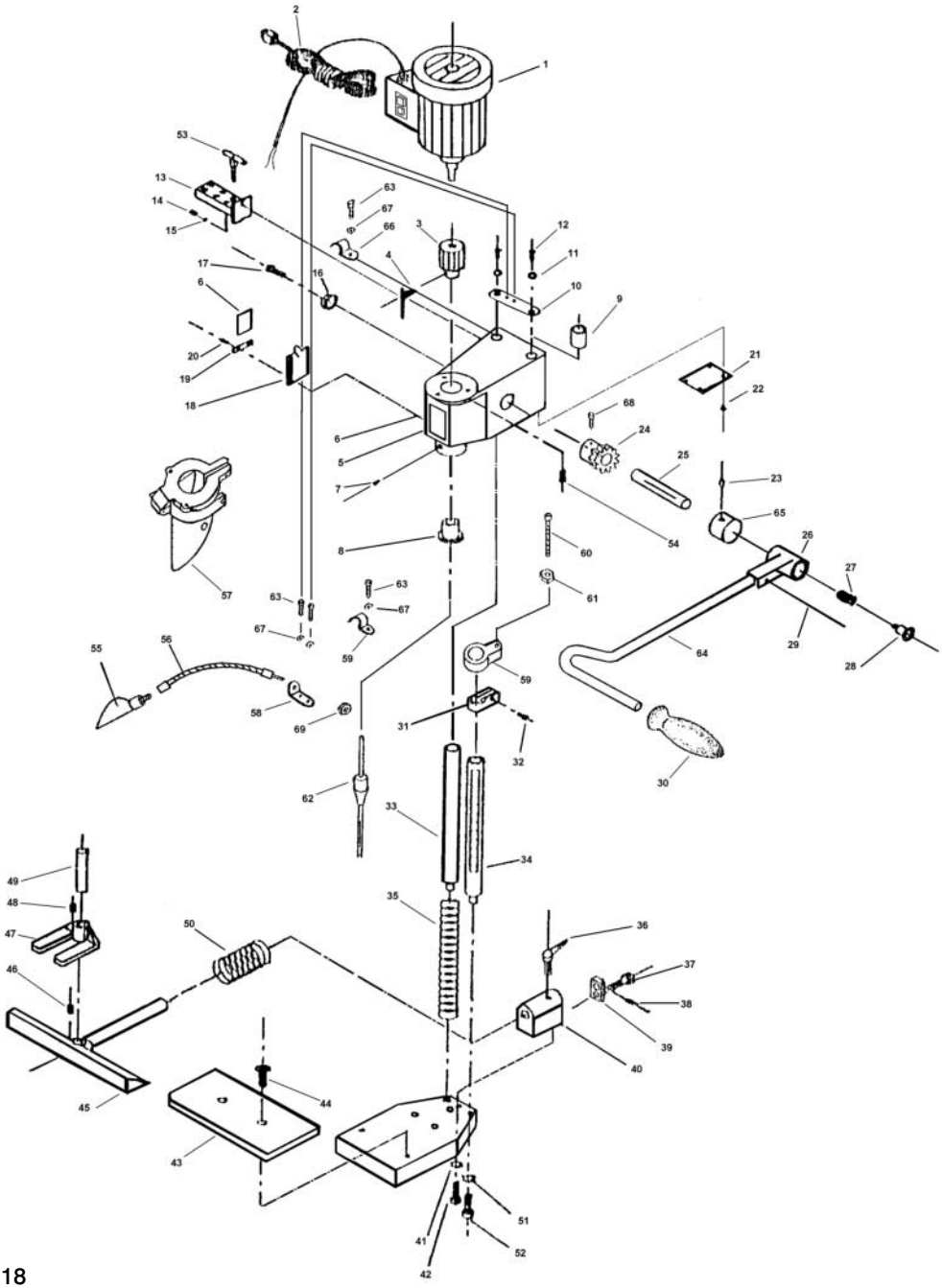
Lightly spray oil on all exposed metal surfaces if the machine is going to stand idle for any length of time. Keep the chisels and augers sharp.

Once a month

Blow/suck the motor to remove any debris that might have lodged in the fan cover. Oil the chuck and exercise it over its full range to ensure the oil coats all moving parts.

There are full ranges of mortice chisels and a useful sharpening set listed in Section 1 of the Axminster catalogue.

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Ref No	Description Unit
1	Motor
2	Power cord
3	Chuck
4	Key
5	Head
6	Label
7	Hex head bolt M8 x 20
8	Bushing
9	Guide sleeve
10	Position plate
11	Flat washer 10
12	Hex head bolt M10 x 35
13	Holder
14	Cap screw M6 x 25
15	Flat washer 16
16	Washer
17	Hex head screw M6 x 22
18	Cover
19	Hinge
20	Phillips screw M5 x 10
21	Lower cover plate
22	Phillips screw M5 x 6
23	Spring pin 6 x 30
24	Gear
25	Hub assembly
26	Handle assembly
27	Spring
28	Shoulder bolt
29	Spring pin 6 x 20
30	Grip
31	Spacing sleeve
32	Knob
33	Spindle
34	Spindle
35	Spring

Ref No	Description Unit
36	Handle assembly
37	Bolt
38	Cap screw M8 x 10
39	Guide
40	Bracket
41	Lock washer
42	Hex head bolt M8 x 15
43	Table
44	Hex head screw M6 x 35
45	Fence
46	Cap screw M8 x 10
47	Hold down
48	Cap screw M8 x 10
49	Rod
50	Spring
51	Lock washer
52	Hex head bolt M10 x 30
53	T handle
54	Cap screw M6 x 30
55	Bulb cover
56	Power cord (bulb)
57	Safety guard
58	Mounting plate
59	Power cord clamp
60	Cap screw M6 x 60
61	Hex nut M6
62	Chisel
63	Cap screw M6 x 12
64	Handle
65	Bushing
66	Power cord clamp
67	Washer 6
68	Cap screw
69	Hex nut

Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local recycling centre and place into the appropriate recycling bin.

Only for EU countries

Do not dispose of electric tools together with household waste material. In observance of European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.